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10/585,484	05/14/2008	Franciscus Johannes Maria Van De Weijer	ALG10220P00120US	3658

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EXAMINER	
SLAWSKI, BRIAN R	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,484	VAN DE WEIJER ET AL.	
	Examiner	Art Unit	
	BRIAN R. SLAWSKI	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5 and 8-36* is/are pending in the application.

4a) Of the above claim(s) *12 and 22-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,8-11,13-15 and 17-21* is/are rejected.

7)☒ Claim(s) *16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2006 and 09 August 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *14 September 2006, 30 July 2007, 17 August 2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

METHOD FOR PRODUCING CONTAINER PARTS, CONTAINER PARTS, METHOD FOR PRODUCING A MULTILAYER FOIL, MULTILAYER FOIL

Election/Restriction

1. Applicant's election of Group I, species 1a, in the reply filed on October 22, 2010, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 12 and 22-26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 22, 2010.

Claim Rejections—35 USC §103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4, 5, 8, 11, 13, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. (US 4,868,033) in view of either one of Mast (US 6,501,059) or Fichtner (US 3,302,632).

Regarding claim 1, Nakano et al. teach a method of producing a self-supporting container part for food having electromagnetic shielding properties, such as the casing

depicted in Fig. 18 having a compartment for receiving food and a microwave-radiation influencing material (i.e., metal) layer in the compartment's circumferential wall 22 (col. 1, LL. 7-11, LL. 51-57; col. 5, LL. 4-9). The method comprises the steps of providing a multilayer foil 10 comprising a metal foil 3 and either one or two non-microwave-radiation-influencing films 2 of heat-shrinkable resin bonded to one or both sides of the metal foil 3 (Fig. 1, 5-7; col. 1, LL. 58-62; col. 3, LL. 3-7, LL. 17-18, LL. 22-23, LL. 66-68). A remaining portion—layer 8/14 of thermoplastic resin—of the container part is then bonded to one side of the multilayer foil 10 (Fig. 2; col. 4, LL. 41-47), by positioning the multilayer foil 10 inside a mold (e.g., between dies 11 and 12) and bonding the thermoplastic resin layer 8/14 to the multilayer foil 10 during forming of the container part (Fig. 15, 16; col. 4, LL. 62-68).

Nakano et al. do not explicitly state that the radiation-shielding food containers made by their method are for treatment in a microwave oven (col. 1, LL. 7-11, LL. 51-57). However, it is well known in the art to form such food containers having a metal layer sandwiched between non-radiation-influencing layers for the explicit purpose of cooking the food therein in a microwave oven, where the metal layer acts to shield the food from microwave radiation to a predetermined extent in order to optimize the cooking process, as evidenced by Mast (Abstract; Fig. 1a, 1b, 6; col. 1, LL. 6-12; col. 2, LL. 59-67; col. 3, LL. 1-4; col. 4, LL. 62-67; col. 5, LL. 1-5; col. 6, LL. 66-67; col. 7, LL. 1-10, LL. 21-26) and Fichtner (Fig. 1, 2; col. 1, LL. 9-11, LL. 66-69; col. 2, LL. 6-34). Hence, it would have been obvious to one of ordinary skill in the art to use the food

container made by the method of Nakano et al. for cooking in a microwave oven in light of the teachings of either of Mast or Fichtner.

Nakano et al. do not show the individual layers of the multilayer foil 10 within the mold (Fig. 15), as the foil 10 depicted is intended to represent any of the various embodiments of the multilayer foil taught by Nakano et al. (col. 5, LL. 27-28). In the case of the multilayer foil having only one film 2 bonded to one side of the metal foil 3, it would have been obvious to one of ordinary skill in the art to orient the multilayer foil 10 such that the metal foil 3 is bonded to the thermoplastic resin layer 8/14 and the heat-shrinkable resin film 2 is present on a free surface of the container part, because it is conventional in the art to sandwich the metal layer in such food containers between non-metal layers in order to protect the metal from corrosion and the food from contamination, as evidenced by Mast (Fig. 1b; col. 4, LL. 64-67; col. 5, LL. 1-5) and Fichtner (Fig. 2; col. 2, LL. 25-28).

Regarding claim 2, while Nakano et al. depict applying the thermoplastic resin layer 8/14 to the convex side of the molded container part (Fig. 15, 16), they teach no advantage to this configuration and note that the container part may be formed in any desired shape (col. 4, LL. 62-68) and that the thermoplastic resin layer 8/14 is intended to serve as a reinforcing layer, a sealant, and as a decorative layer (col. 4, LL. 45-47). Hence, it would have been obvious to one of ordinary skill in the art to bond the thermoplastic resin layer 8/14 in the alternative orientation on the concave side of the molded container part, such that the heat-shrinkable resin film 2 is present on the outer side of the container part, because this inversion of the container shape of Fig. 15 and

16 is allowed for by Nakano et al. and because the benefits of the thermoplastic resin layer 8/14 taught by Nakano et al. are equally applicable whether the layer 8/14 is applied on the outside or inside surface of the container part.

Regarding claim 4, Nakano et al. teach that the container parts can be formed by injection-molding the thermoplastic resin layer 8/14 in an injection mold (Fig. 15, 16; col. 2, LL. 7-10; col. 4, LL. 62-68).

Regarding claim 5, Nakano et al. teach that, alternatively, the container parts can be formed by thermoforming the container parts in a thermoforming mold (Fig. 19-21; col. 2, LL. 7-10; col. 5, LL. 4-22).

Regarding claim 8, Nakano et al. do not specifically teach that the metal foil 3 is provided with holes. However, it is well known in the art to pattern the metal layer of such microwave-shielding food containers with holes in order to allow some transmission of microwave radiation and tailor the cooking rate of food therein, as evidenced by Mast (Fig. 1b, 2, 3a, 3b; col. 4, LL. 64-67; col. 5, LL. 5-11; col. 6, LL. 20-49) and Fichtner (Fig. 1; col. 2, LL. 25-34). Hence, it would have been obvious to one of ordinary skill in the art to provide holes in the metal foil 3 of Nakano et al. in order to adjust the cooking rate of the food in the container.

Regarding claim 11, Nakano et al. teach that the heat-shrinkable resin film 2 is a closed layer (Fig. 1; col. 3, LL. 22-32).

Regarding claim 13, Mast, for instance, does not specifically show the production line(s) in which holes 14 are formed in Mast's metal foil 12 and the metal foil 12 and polymer barrier layer 11 are then bonded to a stiffening backing layer 13 corresponding

to the reinforcing thermoplastic resin layer 8/14 of Nakano et al. (Fig. 1b, 2; col. 4, LL. 64-67; col. 5, LL. 1-11). However, it would have been obvious to one of ordinary skill in the art to perform these sequential steps in a single production line at a single manufacturing location in order to minimize handling and transport of the materials between process steps, and hence would have been obvious to form holes in the metal foil 3 of Nakano et al. in the same production line as that in which the multilayer foil 10 is later bonded to the thermoplastic resin layer 8/14 for the same reason.

Regarding claim 15, Nakano et al. teach that the multilayer foil 10 may be provided with non-microwave-radiation-influencing films 2 of heat-shrinkable resin on either side of the metal foil 3 (Fig. 6, 7; col. 1, LL. 58-62; col. 3, LL. 66-68).

Regarding claim 17, Nakano et al. teach that the heat-shrinkable resin film 2 and the thermoplastic resin layer 8/14 may be made of the same materials, including polyethylene, polypropylene, vinyl chloride, polystyrene, or polyester (e.g., polyethylene terephthalate) (Fig. 1, 8, 12; col. 3, LL. 3-11; col. 4, LL. 8-17, LL. 41-45, LL. 48-49).

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. in view of either one of Mast or Fichtner as applied to claims 1, 2, 4, 5, 8, 11, 13, 15, and 17 above, and further in view of Brown (US 3,219,460).

Regarding both of claims 9 and 10, Nakano et al. do not specifically teach forming a food container having multiple compartments. However, it is well known in the art to provide such food containers with plural recessed compartments in order to keep different foods in the container separated from each other, as evidenced by Mast

(Fig. 6; col. 8, LL. 66-67; col. 9, LL. 1-13, LL. 21-26) and Fichtner (Fig. 1, 2; col. 2, LL. 6-11, LL. 19-22, LL. 39-44). It would have been obvious to one of ordinary skill in the art to provide such a plurality of molded compartments in the food container of Nakano et al. so that a variety of foods could be stored and prepared in the container without mixing with each other.

Furthermore, it is also well known in the art to provide apertured radiation-shielding metal layers adjacent the compartments of a microwaveable food container, where the metal layers' holes are uniquely configured for each compartment to transmit a different amount of microwave radiation, thus allowing foods with different thermal properties to be cooked simultaneously in a microwave oven. See, for instance, Mast (Fig. 6; col. 8, LL. 66-67; col. 9, LL. 1-21), Fichtner (Fig. 1, 2; col. 1, LL. 66-69; col. 2, LL. 39-53), and Brown (Fig. 3, 4; col. 1, LL. 11-13, LL. 47-58; col. 2, LL. 62-72; col. 3, LL. 1-7, LL. 70-75). It would have been obvious to one of ordinary skill in the art to apply the same principal to the metal foil 3 of Nakano et al. in a food container with different foods in plural compartments, providing the metal foil with different configurations of holes beneath each compartment in order to tailor the cooking rate of the different foods.

Regarding claim 9 in particular, Mast (Fig. 2, 3a, 3b; col. 5, LL. 8-11, LL. 52-64; col. 6, LL. 26-49) and Brown (Fig. 4; col. 2, LL. 69-72; col. 3, LL. 1-5) teach that providing different shapes and patterns of holes in the metal layers adjacent each compartment of a food container can give the metal layers different unshielded areas and resistances to microwave-induced currents in each compartment. Regarding claim

10 in particular, Fichtner (Fig. 1, 2; col. 1, LL. 66-69; col. 2, LL. 39-53) and Brown (Fig. 4; col. 1, LL. 53-57; col. 2, LL. 69-72; col. 3, LL. 1-5) teach that using different sizes of holes in the different compartments' metal layers yields the same ability to adjust the cooking rates of the foods therein. Hence, it would have been obvious to one of ordinary skill in the art to provide different patterns and/or sizes of holes in the metal foil 3 of Nakano et al. to allow different cooking rates of foods in a plural-compartment container.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. and either one of Mast or Fichtner as applied to claims 1, 2, 4, 5, 8, 11, 13, 15, and 17 above, and further in view of either one of Lafferty et al. (US 6,102,281) or Mast (US 2004/0238535; "Mast '535").

Nakano et al. do not specifically show the shape of the multilayer foil 10 before forming the flat multilayer foil into a dish-shaped container part (e.g., Fig. 18). However, it is known in the art to form such dish-shaped microwaveable food containers from flat multilayer foils comprising metal and nonmetal layers by cutting the multilayer foil to have flaps to be folded into the container's sidewalls, where the flaps have cut-out corner portions to prevent excess overlapping of material (especially of the metal, which may produce uneven heating in overlapped regions), as evidenced by Lafferty et al. (Fig. 1-3; col. 1, LL. 5-6, LL. 65-67; col. 2, LL. 1-6, LL. 43-48, LL. 52-55, LL. 64-67; col. 3, LL. 12-16) and Mast '535 (Fig. 5, 6; [0002, 0008, 0047-0049]). It would have been obvious to one of ordinary skill in the art to cut the multilayer foil 10 of Nakano et al. into

a similar shape with cut-out corner portions before folding it into the container part in a mold, in order to facilitate the folding and prevent excess overlapping of the multilayer foil (and consequent uneven heating during microwaving) in the shaped container part.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. and either one of Mast or Fichtner as applied to claims 1, 2, 4, 5, 8, 11, 13, 15, and 17 above, and further in view of Minerich et al. (US 5,593,610).

Regarding claim 18, Nakano et al. do not specifically teach covering their food container with an additional multilayer foil after filling the container with food. However, it is well known in the art to cover and seal such dish-shaped food containers with another multilayer film having a radiation-influencing material layer, in order to extend the shelf life of the food therein and provide additional control over the amount of radiation the food receives from above, as evidenced by Minerich et al. (Fig. 2, 2A, 2B, 4; col. 2, LL. 3-6, LL. 20-36, LL. 50-55; col. 3, LL. 19-22, LL. 37-42, LL. 58-60). Minerich et al. teach a microwaveable food container 20 having a lid 10 made of a multilayer foil, the multilayer foil comprising a microwave-transparent film 12 and a microwave-radiation-influencing metal layer 16, 17 bonded on the side thereof remote from the container's interior (Fig. 2, 2A, 2B; col. 5, LL. 34-38, LL. 45-54). It would have been obvious to one of ordinary skill in the art to apply the multilayer foil lid of Minerich et al. onto the food container of Nakano et al. after filling the container with food, in order to better preserve the food and control its exposure to overhead radiation.

Regarding claim 19, Minerich et al. teach directly bonding the lower microwave-transparent film 12 of their multilayer foil lid 10 to the upper circumferential flange 28 of the filled food container 20 (Fig. 2; col. 3, LL. 28-31; col. 5, LL. 34-36, LL. 51-54), so that it would have been obvious to one of ordinary skill in the art to likewise directly bond the multilayer foil lid of Minerich et al. to the upper circumferential flange 23 of the food container of Nakano et al. (Fig. 18; col. 5, LL. 4-7).

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al., either one of Mast or Fichtner, and Minerich et al. as applied to claims 18 and 19 above, and further in view of Middleton et al. (WO 03/078012).

Minerich et al. do not specifically teach the alternative of bonding their multilayer foil lid 10 to the flange 28 of the food container 20 via a separate sealing foil. However, Middleton et al. also teach a microwaveable food tray 100 made of a multilayer foil comprising a metal layer and nonmetal layers and having an upper circumferential flange 116 designed to mate with a lid or sealing film (Fig. 1A; [0119, 0121-0123]). Middleton et al. teach that when the tray is press-formed the flange 116 can develop surface pleats 122 that may interfere with the sealing of the lid or sealing film, and that therefore the upper surface 128 of the flange 116 can be encapsulated with a smooth plastic layer (i.e., a separate sealing foil directly bonded to the flange), to which a sealing film can then be glued hermetically (Fig. 1A, 1B, 3, 4; [0125-0126, 0129-0131]). Hence, it would have been obvious to one of ordinary skill in the art to use such a separate sealing foil between the multilayer foil lid 10 of Minerich et al. and the flange

23 of the container taught by Nakano et al., in order to provide a smooth sealing surface despite any irregularities in the surface of the flange 23 resulting from the container's shaping.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano et al. in view of either one of Mast or Fichtner as applied to claims 1, 2, 4, 5, 8, 11, 13, 15, and 17 above, and further in view of Tilton (US 2009/0047525). (Note that Tilton is cited to evidence an intrinsic material property, and thus need not antedate Applicant's foreign priority.)

Nakano et al. teach that the heat-shrinkable resin film 2 of the multilayer foil 10 can be any of various conventional polymers, including polyethylene, polypropylene, vinyl chloride, polystyrene, or polyester (col. 3, LL. 3-11). While Nakano et al. do not explicitly describe these nonconductive polymer films as being electrostatically chargeable, Lafferty et al. teach that all electrically insulating materials are capable of holding a static charge [0011], such that the resin film 2 made of the materials taught by Nakano et al., and thus the multilayer foil 10, would be electrostatically chargeable.

Allowable Subject Matter

10. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 16 would be allowable because, while Nakano et al. teach that non-microwave-radiation-influencing heat-shrinkable resin films

2 may be bonded to both sides of the metal foil 3 in the multilayer foil 10 (Fig. 6; col. 3, LL. 66-68), they do not teach doing so only to then detach one of the heat-shrinkable resin films 2 before bonding the multilayer foil 10 to the remaining portion (thermoplastic resin layer 8/14) of the container part.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN R. SLAWSKI whose telephone number is (571)270-3855. The examiner can normally be reached on Monday to Thursday, 7:30 a.m. to 5:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker, can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian R. Slawski/
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B.R.S.

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